UTILITY PATENT APPLICATION TRANSMITTAL **(Large Entity)** *(Only for new nonprovisional applications under 37 CFR 1.53(b))*	Docket No. SOM920000011US1
	Total Pages in this Submission **223**

Transmitted herewith for filing under 35 U.S.C. 111(a) and 37 C.F.R. 1.53(b) is a new utility patent application for an invention entitled:

SYSTEM AND METHOD FOR AN ADAPTIVE SALES INTERVIEW SEARCH TECHNIQUE

and invented by:

John J. Rofrano

If a CONTINUATION APPLICATION, *check appropriate box and supply the requisite information:*

☐ **Continuation** ☐ **Divisional** ☐ **Continuation-in-part (CIP)** of prior application No.: _____

Which is a:

☐ **Continuation** ☐ **Divisional** ☐ **Continuation-in-part (CIP)** of prior application No.: _____

Which is a:

☐ **Continuation** ☐ **Divisional** ☐ **Continuation-in-part (CIP)** of prior application No.: _____

Enclosed are:

Application Elements

1. ☒ Filing fee as calculated and transmitted as described below

2. ☒ Specification having _____22_____ pages and including the following:

    a. ☒ Descriptive Title of the Invention

    b. ☐ Cross References to Related Applications *(if applicable)*

    c. ☐ Statement Regarding Federally-sponsored Research/Development *(if applicable)*

    d. ☐ Reference to Microfiche Appendix *(if applicable)*

    e. ☒ Background of the Invention

    f. ☒ Brief Summary of the Invention

    g. ☒ Brief Description of the Drawings *(if drawings filed)*

    h. ☒ Detailed Description

    i. ☒ Claim(s) as Classified Below

    j. ☒ Abstract of the Disclosure

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Application Elements (Continued)

3. ☒ Drawing(s) *(when necessary as prescribed by 35 USC 113)*

     a. ☒ Formal   Number of Sheets   2

     b. ☐ Informal   Number of Sheets

4. ☒ Oath or Declaration

     a. ☒ Newly executed *(original or copy)*   ☐ Unexecuted

     b. ☐ Copy from a prior application (37 CFR 1.63(d)) *(for continuation/divisional application only)*

     c. ☒ With Power of Attorney   ☐ Without Power of Attorney

     d. ☐ *DELETION OF INVENTOR(S)*
         Signed statement attached deleting inventor(s) named in the prior application,
         see 37 C.F.R. 1.63(d)(2) and 1.33(b).

5. ☐ Incorporation By Reference *(usable if Box 4b is checked)*
 The entire disclosure of the prior application, from which a copy of the oath or declaration is supplied under Box 4b, is considered as being part of the disclosure of the accompanying application and is hereby incorporated by reference therein.

6. ☐ Computer Program in Microfiche *(Appendix)*

7. ☐ Nucleotide and/or Amino Acid Sequence Submission *(if applicable, all must be included)*

     a. ☐ Paper Copy

     b. ☐ Computer Readable Copy *(identical to computer copy)*

     c. ☐ Statement Verifying Identical Paper and Computer Readable Copy

Accompanying Application Parts

8. ☒ Assignment Papers *(cover sheet & document(s))*

9. ☐ 37 CFR 3.73(B) Statement *(when there is an assignee)*

10. ☐ English Translation Document *(if applicable)*

11. ☒ Information Disclosure Statement/PTO-1449   ☒ Copies of IDS Citations

12. ☐ Preliminary Amendment

13. ☒ Acknowledgment postcard

14. ☒ Certificate of Mailing

     ☐ First Class   ☒ Express Mail *(Specify Label No.):*   EL 564089755US

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Accompanying Application Parts (Continued)

15. ☐ Certified Copy of Priority Document(s) *(if foreign priority is claimed)*

16. ☐ Additional Enclosures *(please identify below):*

Request That Application Not Be Published Pursuant To 35 U.S.C. 122(b)(2)

17. ☐ Pursuant to 35 U.S.C. 122(b)(2), Applicant hereby requests that this patent application not be published pursuant to 35 U.S.C. 122(b)(1). Applicant hereby certifies that the invention disclosed in this application has not and will not be the subject of an application filed in another country, or under a multilateral international agreement, that requires publication of applications 18 months after filing of the application.

Warning

An applicant who makes a request not to publish, but who subsequently files in a foreign country or under a multilateral international agreement specified in 35 U.S.C. 122(b)(2)(B)(i), must notify the Director of such filing not later than 45 days after the date of the filing of such foreign or international application. A failure of the applicant to provide such notice within the prescribed period shall result in the application being regarded as abandoned, unless it is shown to the satisfaction of the Director that the delay in submitting the notice was unintentional.

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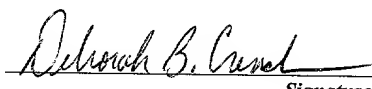
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Fee Calculation and Transmittal

CLAIMS AS FILED

For	#Filed	#Allowed	#Extra	Rate		Fee
Total Claims	39	- 20 =	19	x	$18.00	$342.00
Indep. Claims	3	- 3 =	0	x	$80.00	$0.00
Multiple Dependent Claims (check if applicable) ☐						$0.00
					BASIC FEE	$710.00
OTHER FEE *(specify purpose)*						$0.00
					TOTAL FILING FEE	$1,052.00

☐ A check in the amount of   to cover the filing fee is enclosed.

☒ The Commissioner is hereby authorized to charge and credit Deposit Account No.   **09-0459**
    as described below. A duplicate copy of this sheet is enclosed.

     ☒ Charge the amount of   **$1,052.00**   as filing fee.

     ☒ Credit any overpayment.

     ☒ Charge any additional filing fees required under 37 C.F.R. 1.16 and 1.17.

     ☐ Charge the issue fee set in 37 C.F.R. 1.18 at the mailing of the Notice of Allowance,
       pursuant to 37 C.F.R. 1.311(b).

Signature

Deborah B. Crenshaw, Esq.
Registration No. 41,689

Dated: **October 16, 2000**

23413

CC:
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APPLICATION

FOR

UNITED STATES LETTERS PATENT

APPLICANT NAME: JOHN J. ROFRANO

TITLE: SYSTEM AND METHOD FOR AN ADAPTIVE
SALES INTERVIEW SEARCH TECHNIQUE

DOCKET NO. SOM920000011US1

INTERNATIONAL BUSINESS MACHINES CORPORATION

SYSTEM AND METHOD FOR AN ADAPTIVE SALES INTERVIEW SEARCH TECHNIQUE

BACKGROUND OF THE INVENTION

This invention relates generally to an electronic catalog system and, more specifically, to a system and method for an adaptive sales interview search technique.

It is well recognized that procurement systems have traditionally been manual, labor intensive and quite costly operations. Suppliers, for example will do mass mailings of catalogs to potential customers, the customers would browse the catalogs and select items to be purchased and then the customer would complete a paper order form, or call the supplier to order the items. The entire process, from preparing the catalog to receipt of the order, is very labor intensive and often takes several weeks. If a supplier wanted to continually update his catalogs, or provide different price schedules to different customers, the printing, distribution and administrative costs would be substantial.

On a relatively small scale, some suppliers have offered catalogs through computer services, such as PRODIGY (TM). Employing PRODIGY (TM), a computer user can dial-up a service from home and select items to purchase from various catalogs maintained on the system. Upon selection, PRODIGY (TM) initiates the order with the supplier. While this has made significant improvements in typical procurement situations, there are still numerous needs remaining to be fulfilled.

Current electronic catalog systems which service the customer are generally deficient in several ways. First they are very generalized in the information they provide. These systems are not customer-centric in design. Thus they are generally product oriented and rely on human sales associates to make the final sale. Additionally, they do not rely on the personalized characteristics, needs or criteria of the specific buyer in order to narrow the choices of selection to be offered to the customer. This therefore requires excess time on the part of the customer or shopper to browse through the catalog in order

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to make the proper selection. The current electronic catalog systems are unable to advise shoppers on catalog navigation and product features when shopping for somebody other than themselves such as gift shopping. Thus current electronic catalog systems present all catalog shoppers with the same presentation format based on an internal machine

5 organization of the catalog's content, rather than dynamically generated presentation format based on a customer's individualized personality, interests or needs and a sales representatives experience. This type of Internet electronic catalog business limits the merchant's ability to sell since they still do not have the tools with which to fashion target-sales strategies. As a result the current electronic catalog systems are only slightly

10 better than human-centric, direct-marketing strategies employing time consuming and expensive sales staff.

Customer interaction with current electronic catalog systems follows one of a plurality of pre-set paths along a decision tree, with the customer input typically being limited to responses to pre-defined choices. Interactive on-line catalog sales applications

15 utilize user responses to questions, which may directly or indirectly relate to products in the category. The customer may indicate his or her interest in defined categories of product information and then be provided with appropriate screens displaying available products from this database. Such systems frequently attempt to direct the information retrieval by first gathering information about the customer and the customer's needs,

20 before posting specific product questions, thereby establishing the appropriate path along the decision tree in advance.

Shortcomings of available prior art search and query tools include the fact that all customers must interact with the system using a limited set of pre-established interactions. In addition, all users must navigate through the pre-set paths and iterations

25 even when the bulk of the information accessible via those paths would not be applicable to that customer's needs nor to the customer's level of familiarity with the available information. The latter shortcoming is particularly significant when one considers

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provisions of product information over the Internet. With worldwide access, customers from geographically diverse locations will have different requirements on available product sets when interacting with the same electronic catalog. Different shoppers will also have different interaction parameters with respect to the level of product detail that they require. For example, when shopping for a camera, a professional photographer will approach the interaction with more detailed specification constraints than the shopper who is shopping for a camera as a gift. No currently available systems can accommodate any of the foregoing demands.

Thus, contemporary electronic catalog systems are typically lacking in the following areas. They do not facilitate customer oriented selling procedures that use custom personalized sales advice; but rather facilitate a more product-centric advertising process that relies on human sales representatives to make the actual sale. They present all catalog shoppers with the same presentation format based on an internal machine organization of the catalog content rather than a dynamically generated presentation format based on a customer's interests and the vast experience of Sales Representative's, stored in a data base, to devise product suggestions for the specific customer.

These current electronic catalog systems handicap and hamper their broad utilization and universal proliferation. Merchants, as a result, still have no tool with which to fashion target-sales strategies. This makes the electronic catalog a poor cousin to human-centric, direct-marketing strategies. They are also unable to incorporate cross-cultural, target-sales strategies into electronic catalogs that are accessed internationally over networks such as the world wide web.

As a further note, when shopping with a current electronic catalog, there is no one available to give the customer assistance short of calling an 800 number and trying to reach a real person for advice. This is not always practical since customers are often already using their telephone via their modem to access the catalog in an on-line system. Customers may also be shopping at off hours and providing 24 hour, 7 day a week service

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help may be cost prohibitive for merchants. In addition, one who calls an 800 number staff line does not always get consistent advice. This is due in part to the fact that turnover is high for 800 staff numbers and quite often the shopper does not get a "knowledgeable" person to advise them. The alternative is that the shopper must be knowledgeable enough about products they wish to buy, or postpone their buy decision until a time which they can get help from a qualified sales person.

Thus, a better solution is desired.

BRIEF SUMMARY OF THE INVENTION

An exemplary embodiment is a system and method for an adaptive sales interview search technique for an electronic catalog. The system includes a customer interface, a host system coupled to the customer interface through a network and a database coupled to the host system. The host system provides, in the electronic catalog, products contained in a database. Also provided by the host system, are questions relating to the products to be presented to a customer who uses the electronic catalog. The host system supplies, in the electronic catalog, likely answers of the customer linked to constraints relative to the products contained in the database. The host system selects the electronic catalog questions in order of ranked importance, presents a highest ranked question, receives an answer to the highest ranked question, applies the constraints based on the answer to the highest ranked question and limits product choices based on the answer to the highest ranked question.

BRIEF DESCRIPTION OF THE DRAWINGS

Referring now to the drawings, wherein like elements are numbered alike in several FIGURES:

FIG. 1 is a block diagram of an exemplary system for an adaptive sales interview search technique in the preferred embodiment.

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FIG. 2 is a flow chart of an exemplary method for an adaptive sales interview search technique in the preferred embodiment.

DETAILED DESCRIPTION OF THE INVENTION

Other techniques for solving problems associated with the absence of a salesperson during the electronic shopping experience utilize question and answer trees. The invention resolves efficiency problems associated with crafting a question and answer tree because the questions and answers are maintained in a ranked list (i.e.; first, second, third...n; 1,2,3...n; A,B,C...n; etc.). In other words, each question is assigned a rank from highest to lowest, with no duplicated questions (as may occur in the question and answer tree). In general, when sales assistance is requested by a customer, a question ranking the highest is asked first. Based on the answer to the highest ranked question, a question with the next highest rank may be asked. Then, based on the answer to the next highest ranked question, a question with the "new" next highest ranked may be asked, and so on, until no questions are left.

The ranked list is navigated concurrently with the execution of the questions and answers, and, thus, only the question paths needing traversal are presented to the customer. Each question may be ranked according to importance and without the need to specify which questions should follow each answer. Thus, the question's rank, and relevance of its answers, determines when, and if, a question is asked. Plus, question ranks may be changed without affecting the other questions in the ranked list. Further, only asking relevant questions (without duplication) provides for a fast and efficient solution for solving problems associated with the absence of a salesperson during the electronic shopping experience.

A question is selectively ranked based on its importance. A question's importance may be based on any number of factors, including, but not limited to, an order of questioning that would normally be asked by a generic salesperson if a customer were

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actually present, statistical data based on the effectiveness of past questions and/or

statistical data based on the number of times customers select to answer a particular

question. Plus, a question's importance, thus its rank, may be varied when the factors

used to determine the rank change.

5   FIG. 1 is a block diagram of an exemplary system for an adaptive sales interview

search technique in an embodiment. The system includes one or more customer

interfaces 2 coupled to a host system 1 via a network 4. Each customer interface 2 may

be implemented using a general – purpose computer executing a computer program for

carrying out the processes described here in. The network 4 may be any type of known

10   network including a local area network (LAN), wide area network (WAN), global

network (e.g., Internet), intranet, etc. The customer interfaces 2 may be coupled to the

host system 1 through multiple networks (e.g., intranet and Internet) so that not all

customer interfaces 2 are coupled to the host system 1 via the same network. One or both

of the customer interfaces 2 and the host system 1 may be connected to the network 4 in a

15   wireless fashion and network 4 may be a wireless network. In the preferred embodiment,

network 4 is the Internet and each customer interface 2 executes a user interface

application (e.g., web browser) to contact the host system 1 through the network 4.

Alternatively, the customer interface 2 may be implemented using a device programed

primarily for accessing network 4 such as WebTV.

20   The host system 1 may be implemented using a server operating in response to a

computer program stored in a storage medium accessible by the server. The host system

1 may operate as a network server (often referred to as a web server) to communicate

with the customer interfaces 2. The host system 1 handles sending and receiving

information to and from customer interfaces 2 and can perform associated tasks. The

25   host system 1 may also include a firewall to prevent unauthorized access to the host

system 1. The firewall may be implemented using conventional hardware and/or software

as is known in the art.

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The host system 1 also operates as an applications server. The host system 1 executes one or more computer programs to interact with a database 3. It is understood that separate servers may be used to implement the network server functions and the applications server functions. Alternatively, the network server, firewall and the applications server can be implemented by a single server executing computer programs to perform the requisite functions.

Database 3 contains a variety of information related to the entity operating the system. In an exemplary embodiment, the system is operated by a product supplier. Changes to database 3 can be made dynamically, in real-time to instantaneously update information accessible by customer interfaces 2. This helps to ensure that items such as new products are kept current. Database 3 allows information to be updated online, in real-time for staff to properly administer customer product selections and provide enhanced service to customers.

An exemplary method for an embodiment shown in the flow chart of FIG. 2 will now be described. First, in step 20, an actual customer initiates a potential electronic catalog purchase and asks for assistance. Next, in step 22, the question with the highest rank (or next highest rank in subsequent steps) is obtained. In step 24, whether the question is relevant is determined. The question is relevant if at least one of its answers is relevant, and an answer is relevant if it has no product constraints or if its product constraints, as combined with all previous answer product constraints, yield a positive or non-zero product count. If the question is relevant, then in step 26, the question and associated answers are presented to the customer. Note that the associated answers may be limited to only relevant answers, thereby precluding the customer from being presented with an answer selection that may result in a zero product count. Next, in step 28, the customer selects an answer. Based on the customers selection, step 30 determines whether constraints on the product selection are required. If so, product selection is constrained in step 32. Regardless of whether or not product selection is constrained, step

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34 determines whether to ask another question. If no other questions are to be asked, in step 36, the customer is presented with products meeting the customer's requirements. If other questions remain to be asked, the entire method is repeated, starting with step 22, by obtaining the question with the next highest rank.

If, in step 24, the question is determined to be irrelevant, then step 34 determines whether to ask another question. Again, if no other questions are to be asked, in step 36, the customer is presented with products meeting the customer's requirements. If other questions remain to be asked, the entire method is repeated (starting with step 22), by obtaining the question with the next highest rank.

In the method of FIG. 2, a host system 1 queries the database and determines which questions to ask. The host system 1 acts on questions that a salesperson would normally ask a customer, if such a salesperson were actually present. Such questions, and associated relevant answers, are created from a database of products and associated features. Feature constraints are created from a list of all possible features for each category of products associated with a particular question. For instance, seven example products were used to develop the ranked list of Table 2, and are shown in Table 1. Table 1 also shows the various possible product features, such as format, light, body and price. In the example list of Table 2, various ranked questions, answers and product constraints are shown. As discussed, the host system 1 asks the highest ranked question first. In Table 2, the highest ranked question is, "Are you more interested in high-quality or compatibility?" with "High quality" and "Compatibility" being the two possible relevant answers.

TABLE 1

Product Name	Format	Light	Body	Price
CamCorder 1	8MM	Built-in	Compact	500
CamCorder 2	8MM	Optional	Compact	450
CamCorder 3	8MM	Optional	Compact	500
HandyCorder 1	VHS	Built-in	Compact	525
HandyCorder 2	VHS	Built-in	Compact	515
HandyCorder 3	VHS	Optional	Standard	410
HandyCorder 4	VHS	Optional	Standard	400

TABLE 2

Rank	Question	Answer	Constraints
1	Are you more interested in High quality or Compatibility?	High quality	FORMAT = 8MM
		Compatibility	FORMAT = VHS
2	Do you plan to take this camera on vacations or trips?	Yes	BODY = Compact
		No	BODY = Standard
3	Will you be using this camera indoors a lot?	Yes	LIGHT = Built-in
		No	LIGHT = Optional

Initially, the product constraints are empty, and all seven products of Table 1 are available for selection. But if the customer answers the first ranked question with "High

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quality," the host system 1 will apply the product constraint of "FORMAT = 8 MM." As may be seen in Table 1, this answer limits the product selection to three products: CamCorder 1, CamCorder 2 and CamCorder 3. If the customer answers the first ranked question with "Compatibility," the host system 1 will apply the product constraint of "FORMAT = VHS." As may be seen in Table 1, this answer limits the product selection to four products: HandyCorder 1, HandyCorder 2, HandyCorder 3 and HandyCorder 4.

Next, the host system 1 looks for the next highest ranked question (i.e.: Rank 2) and determines whether it has any relevant answers, given the constraints of the previous answer. If all the answers to the next highest ranked question would result in a zero product count (when the constraints are combined with the existing constraints), the question is determined to be irrelevant. In that case, the host system 1 searches for the next highest ranked question with relevant answers, given the constraints of the previous answer. As mentioned, in the example of Table 2, if the answer in the highest ranked question is "High quality," then the product constraint is "FORMAT = 8MM." For this constraint, the host system 1 finds that the next highest ranked question is "Do you plan to take this camera on vacation or trips?" Although all the products with an 8MM format only come with compact bodies, the next highest ranked question is not disqualified as irrelevant. However, since only the "Yes" answer has a positive product count (i.e.; "BODY = Compact"), the question is not actually presented to the customer. In other words, the customer is not burdened with answering a question having only one relevant answer. Instead, the host system 1 automatically selects the relevant answer, and adds its constraints to the list of existing product constraints.

On the other hand, if the answer in the highest rank to question is "Compatibility," then the product constraint is "FORMAT = VHS." Therefore, the question "Do you plan to take this camera on vacation or trips?" is actually presented to the customer. This is because both answers have a positive product count (i.e.; "BODY = Compact;" "BODY = Standard").

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Next, the host system 1 searches for the next highest ranked question. In the example of Table 2, the next highest ranked question is "Will you be using this camera indoors a lot?" The host system 1 determines that each answer to this question yields a positive product count (whether or not the highest ranked question yielded a product constraint of "FORMAT = 8MM" or "FORMAT = VHS"). Therefore, the question is presented to the customer. In the example having an initial product constraint of "FORMAT = 8MM," a "Yes" answer adds the product constraint "LIGHT= Built-in" to the list of product constraints. The host system 1 searches for the next highest ranked question, and in this example, determines that no more questions with relevant answers exist. Therefore, the product constraints become "FORMAT = 8MM," "BODY = Compact" and "LIGHT= Built-in," yielding one product that meets the constraints. Finally, as can be determined from Table 1, CamCorder 1 is presented to the customer.

The above description and examples illustrate how efficiently a series of questions are handled by executing a ranked list, wherein, if a question's answers are irrelevant (or contain only one relevant answer), the question is automatically deleted (or the constraints of the only relevant answer are automatically applied). Therefore, redundancy is eliminated and no manual "pruning" from a question and answer tree is required.

As described above, embodiments in the form of computer-implemented processes and apparatuses for practicing those processes may be included. Embodiments may include those in the form of computer program code containing instructions embodied in tangible media, such as floppy diskettes, CD-ROMs, hard drives, or any other computer-readable storage medium, wherein, when the computer program code is loaded into and executed by a computer, the computer becomes an apparatus for practicing the invention. Further, embodiments may include those in the form of computer program code, for example, whether stored in a storage medium, loaded into and/or executed by a computer, or transmitted over some transmission medium, such as over electrical wiring or cabling, through fiber optics, or via electromagnetic radiation,

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wherein, when the computer program code is loaded into and executed by a computer, the computer becomes an apparatus for practicing the invention. When implemented on a general-purpose microprocessor, the computer program code segments configure the microprocessor to create specific logic circuits.

5   While the invention has been described with reference to exemplary embodiments, it will be understood by those skilled in the art that various changes may be made and equivalents may be substituted for elements thereof without departing from the scope of the invention. In addition, many modifications may be made to adapt a particular situation or material to the teachings of the invention without departing from 10   the essential scope thereof. Therefore, it is intended that the invention not be limited to the particular embodiments disclosed for carrying out this invention, but that the invention will include all embodiments falling within the scope of the appended claims.

WHAT IS CLAIMED IS:

1   CLAIM 1.   A system for an adaptive sales interview search technique for an
2   electronic catalog, the system comprising:
3   a customer interface;
4   a host system coupled to said customer interface through a network;
5   wherein said host system provides in said electronic catalog products
6   contained in a database, provides in said electronic catalog questions relating to said
7   products to be presented to a customer using said electronic catalog, supplies in said
8   electronic catalog likely answers of the customer linked to constraints relative to said
9   products contained in said database, selects said electronic catalog questions in order of
10   ranked importance, presents a highest ranked question, receives an answer to said highest
11   ranked question, applies said constraints based on said answer to said highest ranked
12   question and limits product choices based on said answer to said highest ranked question;
13   and
14   a database coupled to said host system.

1   CLAIM 2.   The system of claim 1, wherein said highest ranked question is presented
2   by a graphics display device.

1   CLAIM 3.   The system of claim 1, wherein said highest ranked question is presented
2   by an audio device.

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1   CLAIM 4.   The system of claim 1, further including:

2   said host system determining a next highest ranked question based on said

3 answer to said highest ranked question;

4   said host system presenting said next highest ranked question;

5   said host system receiving an answer to said next highest ranked question;

6   wherein said host system applies said constraints based on said answer to

7 said highest ranked question and said next highest ranked question; and

8   wherein said host system limits said product choices based on answers to

9 said highest ranked question and said next highest ranked question.

1   CLAIM 5.   The system of claim 4, wherein said host system determining includes said

2 host system searching for said next highest ranked question containing at least one

3 relevant answer.

1   CLAIM 6.   The system of claim 5, wherein said host system searching includes said

2 host system presenting said next highest ranked question if said next highest ranked

3 question contains at least two relevant answers.

1   CLAIM 7.   The system of claim 1, wherein said host system receiving said answer

2 comprises said host system receiving at least one answer from a plurality of

3 predetermined answers.

1   CLAIM 8.   The system of claim 7, wherein each of said plurality of predetermined

2 answers is relevant.

1   CLAIM 9.   The system of claim 5, wherein said host system searching includes:

2   said host system determining whether said next highest ranked question

3   contains one relevant answer; and

4   said host system applying said constraints based on said one relevant

5   answer without presenting said next highest ranked question.

1   CLAIM 10.   The system of claim 4, further including:

2   said host system determining a new next highest ranked question based on

3   said answer to said next highest ranked question;

4   said host system iteratively repeating said host system presenting, said host

5   system receiving, said host system applies and said host system determining for said new

6   next highest ranked question until said new next highest ranked question is not relevant;

7   and

8   wherein said host system limits said product choices based on answers to

9   said highest ranked question, said next highest ranked question and said new next highest

10   ranked questions.

1   CLAIM 11.   The system of claim 10, wherein said host system determining includes

2   said host system searching for said new next highest ranked question containing at least

3   one relevant answer.

1   CLAIM 12.   The system of claim 11, wherein said host system searching includes said

2   host system presenting said new next highest ranked question if said new next highest

3   ranked question contains at least two relevant answers.

1   CLAIM 13.   The system of claim 11, wherein said host system searching includes:

2   said host system determining whether said new next highest ranked

3   question contains one relevant answer; and

4   said host system applying said constraints based on said one relevant

5   answer without presenting said new next highest ranked question.

1   CLAIM 14.   A method for an adaptive sales interview search technique for an

2   electronic catalog including products contained in a database, questions relating to the

3   products to be presented to a customer using the electronic catalog and likely answers of

4   the customer linked to constraints relative to the products, the method comprising:

5   selectively ranking said electronic catalog questions in order of

6   importance;

7   presenting a highest ranked question;

8   receiving an answer to said highest ranked question;

9   applying said constraints based on said answer to said highest ranked

10   question; and

11   limiting product choices based on said answer to said highest ranked

12   question.

1   CLAIM 15.   The method of claim 14, wherein said presenting is by a graphics display

2   device.

1   CLAIM 16.   The method of claim 14, wherein said presenting is by an audio device.

1   CLAIM 17.   The method of claim 14, wherein said receiving said answer comprises

2   receiving at least one answer from a plurality of predetermined answers.

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1   CLAIM 18.   The method of claim 17, wherein each of said plurality of predetermined
2   answers is relevant.

1   CLAIM 19.   The method of claim 14, further including:
2   determining a next highest ranked question based on said answer to said
3   highest ranked question;
4   presenting said next highest ranked question;
5   receiving an answer to said next highest ranked question;
6   wherein said applying said constraints is based on said answer to said
7   highest ranked question and said next highest ranked question; and
8   wherein said limiting product choices is based on answers to said highest
9   ranked question and said next highest ranked question.

1   CLAIM 20.   The method of claim 19, wherein said determining includes searching for
2   said next highest ranked question containing at least one relevant answer.

1   CLAIM 21.   The method of claim 20, wherein said searching includes presenting said
2   next highest ranked question if said next highest ranked question contains at least two
3   relevant answers.

1   CLAIM 22.   The method of claim 20, wherein said searching includes:
2   determining whether said next highest ranked question contains one
3   relevant answer; and
4   applying said constraints based on said one relevant answer without
5   presenting said next highest ranked question.

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1   CLAIM 23.   The method of claim 19, further including:

2   determining a new next highest ranked question based on said answer to

3 said next highest ranked question;

4   iteratively repeating said presenting, said receiving, said applying and said

5 determining for said new next highest ranked question until said new next highest ranked

6 question is not relevant; and

7   wherein said limiting product choices is based on answers to said highest

8 ranked question, said next highest ranked question and said new next highest ranked

9 questions.

1   CLAIM 24.   The method of claim 23, wherein said determining includes searching for

2 said new next highest ranked question containing at least one relevant answer.

1   CLAIM 25.   The method of claim 24, wherein said searching includes presenting said

2   new

3 next highest ranked question if said new next highest ranked question contains at least

4 two relevant answers.

1   CLAIM 26.   The method of claim 24, wherein said searching includes:

2   determining whether said new next highest ranked question contains one

3 relevant answer; and

4   applying said constraints based on said one relevant answer without

5 presenting said new next highest ranked question.

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1   CLAIM 27.   A storage medium encoded with machine-readable computer program

2   code for an adaptive sales interview search technique for an electronic catalog including

3   products contained in a database, questions relating to the products to be presented to a

4   customer using the electronic catalog and likely answers of the customer linked to

5   constraints relative to the products, said storage medium including instructions for

6   causing a processor to implement a method comprising:

7   selectively ranking said electronic catalog questions in order of

8   importance;

9   presenting a highest ranked question;

10   receiving an answer to said highest ranked question;

11   applying said constraints based on said answer to said highest ranked

12   question; and

13   limiting product choices based on said answer to said highest ranked

14   question.

1   CLAIM 28.   The storage medium of claim 27, wherein said presenting is by a graphics

2   display device.

1   CLAIM 29.   The storage medium of claim 27, wherein said presenting is by an audio

2   device.

1   CLAIM 30.   The storage medium of claim 27, wherein said receiving said answer

2   comprises receiving at least one answer from a plurality of predetermined answers.

1   CLAIM 31.   The storage medium of claim 30, wherein each of said plurality of

2   predetermined answers is relevant.

1   CLAIM 32.   The storage medium of claim 27, further including instructions for causing

2   said processor to implement:

3   determining a next highest ranked question based on said answer to said

4   highest ranked question;

5   presenting said next highest ranked question;

6   receiving an answer to said next highest ranked question;

7   wherein said applying said constraints is based on said answer to said

8   highest ranked question and said next highest ranked question; and

9   wherein said limiting product choices is based on answers to said highest

10   ranked question and said next highest ranked question.

1   CLAIM 33.   The storage medium of claim 32, wherein said determining includes

2   instructions for causing said processor to implement searching for said next highest

3   ranked question containing at least one relevant answer.

1   CLAIM 34.   The storage medium of claim 33, wherein said searching includes

2   instructions for causing said processor to implement presenting said next highest ranked

3   question if said next highest ranked question contains at least two relevant answers.

1   CLAIM 35.   The storage medium of claim 33, wherein said searching includes

2   instructions for causing said processor to implement:

3   determining whether said next highest ranked question contains one

4   relevant answer; and

5   applying said constraints based on said one relevant answer without

6   presenting said next highest ranked question.

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1 CLAIM 36.   The storage medium of claim 32, further including instructions for causing
2 said processor to implement:

3   determining a new next highest ranked question based on said answer to
4 said next highest ranked question;

5   iteratively repeating said presenting, said receiving, said applying and said
6 determining for said new next highest ranked question until said new next highest ranked
7 question is not relevant; and

8   wherein said limiting product choices is based on answers to said highest
9 ranked question, said next highest ranked question and said new next highest ranked
10 questions.

1 CLAIM 37.   The storage medium of claim 36, wherein said determining includes
2 instructions for causing said processor to implement searching for said new next highest
3 ranked question containing at least one relevant answer.

1 CLAIM 38.   The storage medium of claim 37, wherein said searching includes
2 instructions for causing said processor to implement presenting said new next highest
3 ranked question if said new next highest ranked question contains at least two relevant
4 answers.

1 CLAIM 39.   The storage medium of claim 37, wherein said searching includes
2 instructions for causing said processor to implement:

3   determining whether said new next highest ranked question contains one
4 relevant answer; and

5   applying said constraints based on said one relevant answer without
6 presenting said new next highest ranked question.

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SYSTEM AND METHOD FOR AN ADAPTIVE SALES INTERVIEW SEARCH TECHNIQUE

ABSTRACT OF THE DISCLOSURE

An exemplary embodiment of the invention is a system and method for an adaptive sales interview search technique for an electronic catalog. The system includes a customer interface, a host system coupled to the customer interface through a network and a database coupled to the host system. The host system provides, in the electronic catalog, products contained in a database. Also provided by the host system, are questions relating to the products to be presented to a customer who uses the electronic catalog. The host system supplies, in the electronic catalog, likely answers of the customer linked to constraints relative to the products contained in the database. The host system selects the electronic catalog questions in order of ranked importance, presents a highest ranked question, receives an answer to the highest ranked question, applies the constraints based on the answer to the highest ranked question and limits product choices based on the answer to the highest ranked question.
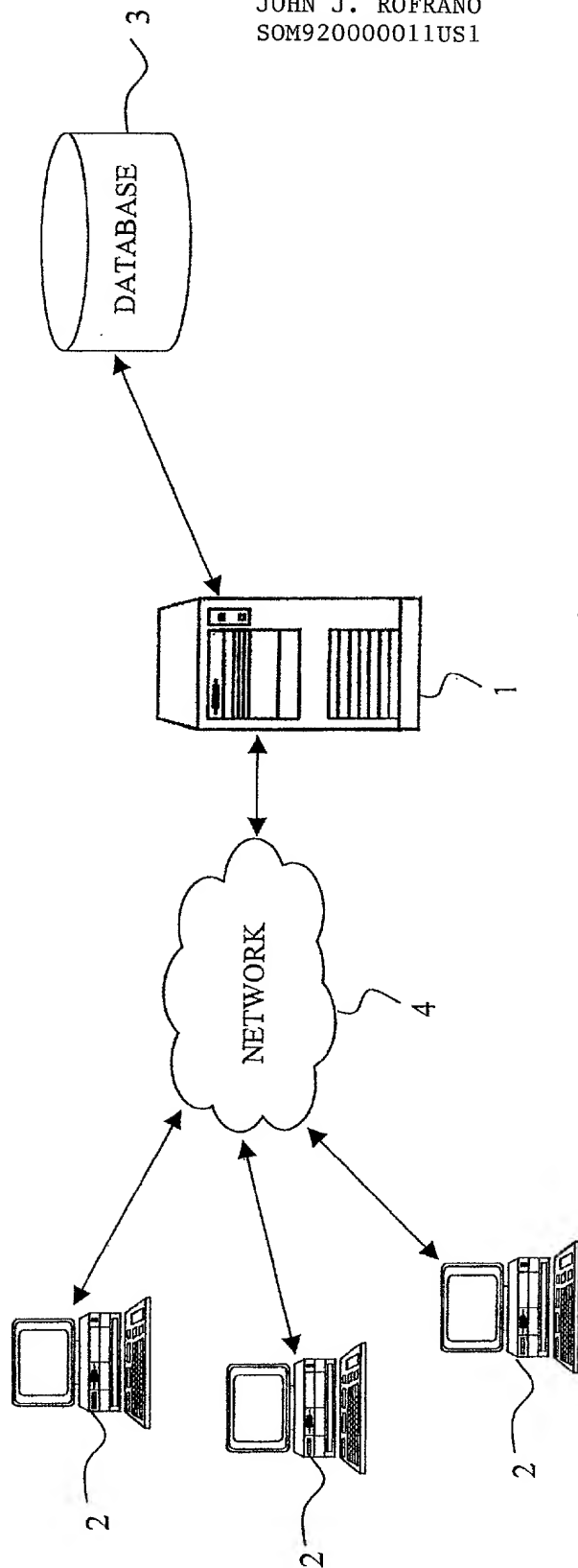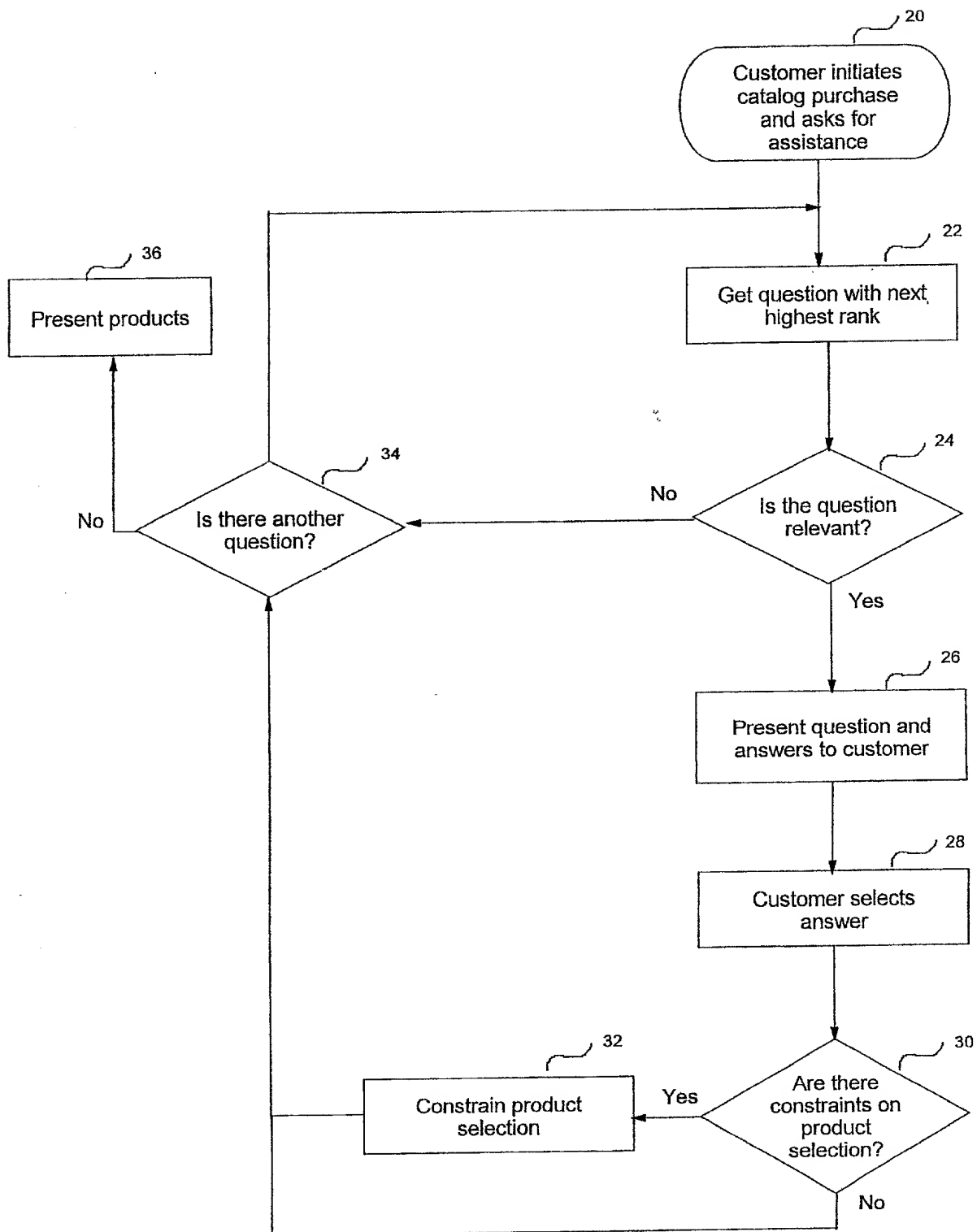
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FIG. 1

FIG. 2

Docket No.
SOM9-2000-0011-US1

Declaration and Power of Attorney For Patent Application

English Language Declaration

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name,

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled

SYSTEM AND METHOD FOR AN ADAPTIVE SALES INTERVIEW SEARCH TECHNIQUE

the specification of which

(check one)

☒ is attached hereto.

☐ was filed on _____ as United States Application No. or PCT International

Application Number _____

and was amended on _____

(if applicable)

I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose to the United States Patent and Trademark Office all information known to me to be material to patentability as defined in Title 37, Code of Federal Regulations, Section 1.56.

I hereby claim foreign priority benefits under Title 35, United States Code, Section 119(a)-(d) or Section 365(b) of any foreign application(s) for patent or inventor's certificate, or Section 365(a) of any PCT International application which designated at least one country other than the United States, listed below and have also identified below, by checking the box, any foreign application for patent or inventor's certificate or PCT International application having a filing date before that of the application on which priority is claimed.

Prior Foreign Application(s)   Priority Not Claimed

(Number)	(Country)	(Day/Month/Year Filed)	☐
(Number)	(Country)	(Day/Month/Year Filed)	☐
(Number)	(Country)	(Day/Month/Year Filed)	☐

I hereby claim the benefit under 35 U.S.C. Section 119(e) of any United States provisional application(s) listed below:

_____   _____
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_____   _____
(Application Serial No.)   (Filing Date)

_____   _____
(Application Serial No.)   (Filing Date)

I hereby claim the benefit under 35 U. S. C. Section 120 of any United States application(s), or Section 365(c) of any PCT International application designating the United States, listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States or PCT International application in the manner provided by the first paragraph of 35 U.S.C. Section 112, I acknowledge the duty to disclose to the United States Patent and Trademark Office all information known to me to be material to patentability as defined in Title 37, C. F. R., Section 1.56 which became available between the filing date of the prior application and the national or PCT International filing date of this application:

_____   _____   _____
(Application Serial No.)   (Filing Date)   (Status)
                                                                             (patented, pending, abandoned)

_____   _____   _____
(Application Serial No.)   (Filing Date)   (Status)
                                                                             (patented, pending, abandoned)

_____   _____   _____
(Application Serial No.)   (Filing Date)   (Status)
                                                                             (patented, pending, abandoned)

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

POWER OF ATTORNEY: As a named inventor, I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and transact all business in the Patent and Trademark Office connected therewith. *(list name and registration number)*

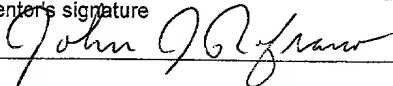|	
Winfield J. Brown, Registration No. 31,901	Timothy J. Olson, Registration No. 42,962
Frederick T. Boehm, Registration No. 32,458	Juan C. Villar, Registration No. 34,271
JoAnn Kealy Crockatt, Registration No. 36,493	George J. Lyman, Registration No. 44,884
Steven J. Meyers, Registration No. 29,330	Deborah B. Crenshaw, Registration No. 41,689
Steven J. Soucar, Registration No. 32,440	
Christopher A. Hughes, Registration No. 26,914	
Edward A. Pennington, Registration No. 32,588	
John E. Hoel, Registration No. 26,279	
Joseph C. Redmond, Jr., Registration No. 18,753	
Philmore H. Colburn II, Registration No. 35,101	
David A. Fox, Registration No. 38,807	

Send Correspondence to: Philmore H. Colburn II
CANTOR COLBURN LLP
55 Griffin Road South
Bloomfield, CT 06002

Direct Telephone Calls to: *(name and telephone number)*
Philmore H. Colburn II   (860) 286-2929

Full name of sole or first inventor
John J. Rofrano

Sole or first inventor's signature   Date 10/11/00

Residence
36 Oak Ridge Circle, Mahopac, NY 10541

Citizenship
United States of America

Post Office Address
36 Oak Ridge Circle, Mahopac, NY 10541

Full name of second inventor, if any

Second inventor's signature   Date

Residence

Citizenship

Post Office Address